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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 09/964,237 | 09/26/2001 | Cary Lee Bates | ROC920010221US1 | 1864 |
| 7590 10/19/2005 | | | EXAMINER | |
| Gero G. McClellan Moser, Patterson & Sheridan, L.L.P. Suite 1500 3040 Post Oak Boulevard Houston, TX 77056-6582 | | | RUTTEN, JAMES D | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2192 | |
| DATE MAILED: 10/19/2005 | | | | |

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/964,237

Applicant(s)

BATES ET AL.

Examiner

J. Derek Rutten

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 July 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-25 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to Applicant's response to Final Office Action dated 20 July 2005, responding to the 20 May 2005 Final Office Action provided in the rejection of claims 1-25, wherein no claims have been amended, no claims have been canceled, and no new claims have been added.
2. Applicant's arguments, see page 9, fourth paragraph, filed 20 July 2005, with respect to the rejection(s) of claim(s) 1, 4, 5, 8-11, 14, 17, and 18 under 35 U.S.C. 102(e) as being anticipated by *Mann* (USPN 6,154,857) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn, and prosecution has been reopened. However, upon further consideration, a new ground(s) of rejection is made in view of "Gprof: A call graph execution profiler" by Graham et al.
3. Applicant's amendment filed on 28 January 2005 necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

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CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1, 4, 5, 8-11, 14, 17, and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over prior art of record U.S. Patent 6,154,857 to Mann (hereinafter “Mann”) in view of “Gprof: A call graph execution profiler” by Graham et al. (hereinafter “Graham”).

In regard to claim 1, Mann teaches a *system* (see at least FIG.1 & associated text), a *method of debugging an application in a debugging environment comprising the application* (see at least *debugging, software products* col. 1:14-48; *program, selected procedure* col. 2:35-67) and a *debugger program* (see at least 102, 112, 100 FIG. 1 & associated text; FIG.2 & associated text) *contained in a computer readable medium or memory* (see at least 218 FIG. 2 & associated text), *when executed by a computer configured with an application being debugged during a debug session, performs breakpoint counter operations* (see at least 219b FIG. 2 & associated text; 219b FIG.6A & associated text; *trigger control registers* 219,

breakpoint registers, second trigger control register 2 19b, second counter col.13:37-col.14:55), the method (i.e., debug program) comprising:

- *counting instructions (i.e., processor) for automatically counting a number of times (i.e., associating a breakpoint-specific counter with) each breakpoint located in the application code segment is encountered while the application is executing during a test run (see at least 219b FIG.2 & associated text), wherein the number is increasing (see at least second counter col.13:37-col.14:55) and, at any time during the test run (see at least test runs col.13:37- col.14:55), wherein counting the number is not limited by a predetermined number representative of a desired number of encounters of the given breakpoint (see at least second counter, frequency of occurrence of procedure of interest col.13:37-col.14:55); and*
- *storing instructions for the number (i.e., counter value) for each breakpoint in a memory space for use in a subsequent run (i.e., execution of application) (see at least 200 FIG.2 & associated text; second counter value, trace cache 200, test runs col.13:37-col.14:55).*

Mann does not expressly disclose: *always reflects a current number of times a given breakpoint has been encountered during the test run.* However, in an analogous environment, Graham teaches that a profiling tool can be used to count the number of times a routine or statement is activated (See section 3.1 starting at the bottom of the second column on pages 121-122: “The gprof monitoring routine counts the number of times each profiled routine is called.”). This profiling tool counts the total number of times a routine is executed and saves this number for later use (See column 1 paragraph 1 on page 121: “At this level,

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profiling counters are similar to debugging statements whose purpose is to show the number of times a piece of code is executed”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to use Graham’s teaching of counting routine invocation with Mann’s breakpoints. One of ordinary skill would have been motivated to be sure that a portion of code has executed, or that a particular implementation is proper (Graham page 121, column 1, paragraph 1).

In regard to claims 4, 5, 8-11, 14, 17, and 18, the above rejection of claim 1 is incorporated. All further limitations have been addressed in the prior Final Office Action dated 20 May 2005.

6. Claims 2, 3, 6, 7, 13, 16, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mann and Graham as applied to claims 1, 4, 5, 8-11, 14, 17, and 18 above, and further in view of prior art of record U.S. Patent 5,321,828 to Phillips et al. (hereinafter “Phillips”). The limitations regarding these claims have been addressed in the prior Final Office Action dated 20 May 2005.

7. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mann and Graham as applied to claims 1, 4, 5, 8-11, 14, 17, and 18 above, and further in view of prior art of record U.S. Patent 5,367,550 to Ishida (hereinafter “Ishida”). The limitations regarding this claim have been addressed in the prior Final Office Action dated 20 May 2005.

8. Claims 12 and 19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mann, Graham, and Philips and further in view of prior art of record U.S. Patent 6,182,208 to Peri et al

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(hereinafter "Peri"). The limitations regarding these claims have been addressed in the prior Final Office Action dated 20 May 2005.

9. Claims 21-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mann and Graham and further in view of prior art of record U.S. Patent 4,080,650 to Beckett (hereinafter "Beckett"). The limitations regarding these claims have been addressed in the prior Final Office Action dated 20 May 2005.

10. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mann, Graham, Philips and Beckett. The limitations regarding this claim have been addressed in the prior Final Office Action dated 20 May 2005.

11. Claim 25 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mann, Graham, Beckett, and Peri. The limitations regarding this claim have been addressed in the prior Final Office Action dated 20 May 2005.

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to J. Derek Rutten whose telephone number is (571) 272-3703. The examiner can normally be reached on T-F 6:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tuan Q. Dam can be reached on (571) 272-3695. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

jdr



TUAN DAM
SUPERVISORY PATENT EXAMINER